

TITLE  
A PHOSPHORESCENT MATERIAL  
ABSTRACT OF THE INVENTION

5        The invention is a novel luminescent transition metal complex, a method of preparing this composition of matter, and an electronic device built with this composition of matter. The composition is an organometallic complex comprising:

10      at least one transition metal that produces phosphorescent emission at room temperature,

        at least one first monoanionic bidentate ligand coordinated through a nitrogen on a heteroaromatic ring and a carbon, and

        at least one second ligand selected from a hydride and a ligand coordinated through a carbon atom which is part of an aromatic group.

15      The electronic device of the invention includes a photoactive layer, electrode and/or an electron transport layer that contains the organometallic complex described above.